

Claims

- [c1] 1. An internal combustion engine and lubricating system therefore comprised of an engine body consisting of a cylinder block having at least one cylinder bore formed therein, a cylinder head assembly affixed to an end of said cylinder block in closing relation to said cylinder bore, a piston reciprocating in said cylinder bore and driving a crankshaft, a crankcase assembly fixed to another end of said cylinder block and cooperating with said cylinder block to journal said crankshaft, said crankcase assembly including an oil pan member for collecting lubricant from said engine, an oil pump driven by said crankshaft and depending at least in part into said oil pan, a mounting pad formed on a side surface of a single component of said engine, an oil delivery passage communicating with said oil pump formed in said single component and terminating at an oil delivery port opening through said side surface and within said mounting pad, an oil discharge passage for delivering filtered oil to said engine formed in said single component and beginning at an oil discharge port opening through said side surface and within said mounting pad, and an oil filter attaching bracket affixed to said mounting pad and

adapted to detachably mount an oil filter.

- [c2] 2. An internal combustion engine and lubricating system as set forth in claim 1, wherein the single component is a component of the crankcase assembly.
- [c3] 3. An internal combustion engine and lubricating system as set forth in claim 2, wherein the single component is a bulkhead to which the oil pan member is affixed.
- [c4] 4. An internal combustion engine and lubricating system as set forth in claim 1, further including a bulkhead forming a portion of the crankcase assembly affixed to a lower surface of the cylinder block and journaling the crankshaft with the cylinder block, the oil pan being fixed to a lower face of said bulkhead.
- [c5] 5. An internal combustion engine and lubricating system as set forth in claim 4, wherein the oil pump is supported by the bulkhead.
- [c6] 6. An internal combustion engine and lubricating system as set forth in claim 5, wherein the single component is the bulkhead.
- [c7] 7. An internal combustion engine and lubricating system as set forth in claim 6, wherein the oil pump has a discharge port communicating at its inlet end directly with

the bulkhead.

- [c8] 8. An internal combustion engine and lubricating system as set forth in claim 7, wherein the mounting pad formed on the bulkhead defines a pair of fluid cavities separated by a dividing wall, one of said cavities being in direct communication with the oil delivery passage, the other of said cavities communicating with the oil discharge passage.
- [c9] 9. An internal combustion engine and lubricating system as set forth in claim 1, further including an oil cooler supported by the oil filter attaching bracket and disposed between said oil filter attaching bracket and the oil filter for cooling the oil delivered to said oil filter.
- [c10] 10. An internal combustion engine and lubricating system as set forth in claim 9, wherein the single component is a component of the crankcase assembly.
- [c11] 11. An internal combustion engine and lubricating system as set forth in claim 10, wherein the single component is a bulkhead to which the oil pan member is affixed.
- [c12] 12. An internal combustion engine and lubricating system as set forth in claim 9, further including a bulkhead forming a portion of the crankcase assembly affixed to a lower surface of the cylinder block and journaling the

crankshaft with the cylinder block, the oil pan being fixed to a lower face of said bulkhead.

[c13] 13. An internal combustion engine and lubricating system as set forth in claim 12, wherein the oil pump is supported by the bulkhead.

[c14] 14. An internal combustion engine and lubricating system as set forth in claim 13, wherein the single component is the bulkhead.

[c15] 15. An internal combustion engine and lubricating system as set forth in claim 14, wherein the oil pump has a discharge port communicating at its inlet end directly with the bulkhead.

[c16] 16. An internal combustion engine and lubricating system as set forth in claim 15, wherein the mounting pad formed on the bulkhead defines a pair of fluid cavities separated by a dividing wall, one of said cavities being in direct communication with the oil delivery passage, the other of said cavities communicating with the oil discharge passage.